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6	POWERING AMERICA: REEVALUATING PURPA'S
7	OBJECTIVES AND ITS EFFECTS ON TODAY'S
8	CONSUMERS
9	WEDNESDAY, SEPTEMBER 6, 2017
10	House of Representatives
11	Subcommittee on Energy
12	Committee on Energy and Commerce
13	Washington, D.C.
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17	The subcommittee met, pursuant to call, at 10:00 a.m., ir
18	Room 2123 Rayburn House Office Building, Hon. Fred Upton [chairman
19	of the subcommittee] presiding.
20	Members present: Representatives Upton, Barton, Shimkus,
21	Latta, Harper, McKinley, Kinzinger, Griffith, Johnson, Long,
22	Bucshon, Flores, Mullin, Hudson, Walberg, Walden (ex officio),
23	Rush, McNerney, Peters, Green, Castor, Sarbanes, Tonko, Loebsack,
24	Schrader, Kennedy, and Pallone (ex officio).
25	Staff present: Ray Baum, Staff Director; Elena Brennan,

Legislative Clerk, Energy/Environment; Jerry Couri, Chief
Environmental Advisor; Zachary Dareshori, Staff Assistant; Wyatt
Ellertson, Research Associate, Energy/Environment; Adam Fromm,
Director of Outreach and Coalitions; Tom Hassenboehler, Chief
Counsel, Energy/Environment; Jordan Haverly, Policy Coordinator,
Environment; A.T. Johnston, Senior Policy Advisor, Energy; Ben
Lieberman, Senior Counsel, Energy; Mary Martin, Deputy Chief
Counsel, Energy & Environment; Alex Miller, Video Production Aide
and Press Assistant; Brandon Mooney, Deputy Chief Energy Advisor;
Mark Ratner, Policy Coordinator; Annelise Rickert, Counsel,
Energy; Dan Schneider, Press Secretary; Madeline Vey, Policy
Coordinator, Digital Commerce & Consumer Protection; Jeff
Carroll, Minority Staff Director; Jean Fruci, Minority Energy and
Environment Policy Advisor; Rick Kessler, Minority Senior Advisor
and Staff Director, Energy and Environment; Alexander Ratner,
Minority Policy Analyst; Andrew Souvall, Minority Director of
Communications, Outreach and Member Services; Tuley Wright,
Minority Energy and Environment Policy Advisor; and C.J. Young,
Minority Press Secretary.

Mr. Upton. Good morning, everyone.

Today, we are going to continue our Powering America series by examining the statute that has played an important role in supporting certain electric generating resources over the past 40 years.

Under the law, PURPA provides preferential rate and regulatory treatment to resources known as qualifying facilities, or better known as QFs.

These resources include co-generation facilities such as industrial plants and certain small power producers that use renewable resources such as wind and solar.

And today's panel witnesses include folks representing various types of QFs including solar developers, an industrial paper manufacturer, and a municipal waste facility in Grand Rapids, Michigan, that can generate 18 megawatts of electricity by burning solid waste.

Under PURPA, the FERC is tasked with implementing the law in coordination with state regulatory authorities. This framework of cooperative federalism allows for each state to enact and administer its own program within limits established by the federal standards.

And, not surprisingly, since each state has different energy needs, resources, and policy objectives, the terms and conditions of each state's OF policies, indeed, vary.

On that point, I would like to welcome the commissioner from

Idaho for appearing here today to share her thoughts and 1 2 perspectives as a state regulator. Energy Policy Act of '05 did make some modest revisions to 3 However, the law has largely remained unchanged since 4 5 1978. During the intervening decades, tremendous changes have 6 7 occurred in the electricity industry, a point that is underscored 8 by the DOE staff report that was released last week. 9 The evolution of the industry has occurred in many ways 10 including the development of the electricity markets in the RTO and bilateral regions, the advent of open access transmission 11 policies, and the influence of new lower cost technologies. 12 of these factors have changed how electricity is generated, 13 14 transmitted, and used by consumers. 15 Additionally, it is important to note that renewable sources of energy, particularly wind and solar, have experienced 16 17 exponential growth in recent years. 18 Last year alone, capacity additions from utility scale 19 renewable resources surpassed the net additions of all other fuel 20 sources combined. 21 There is no question that renewable resources now play a 22 significant role in the nation's fuel mix and are a major contributor in decreasing U.S. greenhouse gas emissions. 23 24 Considering these changed circumstances, this subcommittee

must review whether revisions to PURPA are necessary or

This examination will continue the arguments both 1 appropriate. 2 in support and opposition to making reforms to PURPA. Among them, certain utilities contend that the PURPA 3 provision requiring utilities to purchase QF energy is outdated 4 5 and should be modified or repealed. Conversely, QFs argue that PURPA's mandatory purchase 6 7 obligation remains a necessary backstop to support renewable 8 energy in parts of the country that are not receptive to such 9 development. 10 This oversight hearing will be the first step in reevaluating whether the intent and purpose of PURPA is still being met or if 11 it has already been fulfilled. 12 Additionally, today we are going to be looking at what effect 13 14 the law is having on consumers and repairs in 2017 and beyond. 15 With that, I want to thank the panel for being here and I will yield to the ranking member of the full committee, Mr. 16 17 Pallone, for an opening statement. 18 Mr. Pallone. What happened to the green? They got rid of 19 it. 20 [Laughter.] 21 I am sorry. 22 Mr. Upton. Maize and blue. 23 Mr. Pallone. Oh, okay. 24 Mr. Upton. The block M will be over that. 25 Mr. Pallone. All right.

Mr. Chairman, a lot has changed in the electricity sector since Congress passed Section 210 of the Public Utilities
Regulatory Policies Act in 1978 and more changes are still to come.

However, a number of the goals of PURPA are still valid today, in particular, the goals of increasing competition, encouraging development and deployment of more clean and efficient electricity generation, and ensuring equitable affordable rates for consumers are still important.

PURPA has been successful in encouraging competition, fostering electricity market development, and in bringing new generation and efficiency technologies onto the grid, and as a result, we now have a more competitive and diversified electricity sector.

Of course, PURPA alone is not the only driver of change in the electricity sector. State policies on renewable energy and energy efficiency expanded wholesale markets, connected technological change, growth of natural gas supplies, and changes in consumer expectations and demand are all reshaping this sector.

And I expect we will hear a variety of opinions today about the need for further PURPA reform and the direction that any administrative or legislative reform should take.

The Federal Energy Regulatory Commission recently examined these issues at a technical conference and I believe a number of our witnesses participated and even a few members weighed in on that conference, included myself and Ranking Member Rush.

And I realize that some of our members believe that the statute needs to be revised, particularly on issues like estimation of avoided costs, the mandatory purchase requirement, and FERC's definition of a qualifying facility as it relates to the distance between facilities.

However, the Energy Policy Act of 2005 as passed by this committee under Chairman Barton and signed into law by President Bush provided significant changes to Section 210. Those changes allow utilities in competitive areas to avoid the mandatory purchase obligations. The law also provided greater discretion for state utility commissions to establish methods for determining avoided costs and the duration of power purchase agreements.

This change allowed states even greater flexibility to address their individual situations. For example, the state of Idaho, which we will hear from today, made radical changes to its standard contract and avoided cost calculation.

These are changes that I do not support but they reinforce the fact that many different outcomes are possible under the current PURPA structure.

We will likely hear about the fact that some markets today are saturated with electricity generation. This is due principally or primarily to reduce costs of new generation technologies and the fact that electricity demand is flat in many markets.

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There is also a real issue in some regions today where competition now exists among different generation assets that are all trying to earn sufficient revenue within markets where rates are stable or falling due to flat demand.

In some areas I suspect there is a reluctance to add new, more efficient cleaner energy resources into areas where existing fossil and nuclear generation assets are struggling financially.

But when Congress made the decision to encourage more competition in the development of wholesale markets, there was bound to be winners and losers in those markets to the larger benefit of the consumer.

Consumer preferences, state policies, technological change, and economic trends are favoring renewable resources over traditional fossil and nuclear generation, and this transition is bringing us a clean and more efficient grid and these are positive developments and I would not want to see this committee reversing course on competitive market development without a much more serious and longer consideration of the impacts of such a move away from competition.

FERC has authority to make some changes in the implementation of PURPA. The recent technical conference provided the commission with information to evaluate the effectiveness of its implementation and enforcement of PURPA.

So we have an excellent panel of witnesses here this morning.

I look forward to hearing their testimony. Thank you again, Mr.

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1	Chairman, for holding this important hearing and for working with
2	us on this series of bipartisan hearings on the current status
3	of the electricity sector.
4	And I do I did like the green better. Sorry. Well,
5	actually, you liked the green better.
6	Mr. Upton. So Oregon green is gone.
7	[Laughter.]
8	The chair would recognize the
9	Mr. Pallone. Just trying to go blue here.
10	Mr. Upton. The chairman it was a nice win over Florida.
11	Sorry they are not here today. The chair would recognize the
12	chair of the full committee, gentleman from Oregon, Mr. Walden.
13	The Chairman. I thank the gentleman.
14	Nearly 40 years ago, as we have all heard, Congress passed
15	the Public Utility Regulatory Public Utilities Regulatory
16	Policies Act, commonly known as PURPA.
17	As many of you are aware, this law was passed during the time
18	when the country was overly dependent on foreign supplies of
19	energy, resulting in national energy shortages and economic
20	instability.
21	And in response to these challenging circumstances, Congress
22	passed PURPA with the goal of promoting energy conservation,
23	increasing domestic energy supplies.
24	Now that PURPA has been in place for multiple decades, we
25	can see how it has helped transform the U.S. energy sector,

bolstered renewable energy, and reduced greenhouse gas emissions. 1 2 Gone are the days of Americans relying heavily on overseas sources of energy and unstable global markets to meet energy 3 Instead, the country now has access to many forms of 4 needs. 5 abundant domestic energy which has been spurred by innovative technologies and competitive energy markets. 6 7 Now, in passing PURPA, Congress took the first steps toward 8 competition within the electricity markets by allowing

electricity generation to be independent of regulated monopolies for the first time.

Since then, Congress and FERC have continued to take actions to increase competition, resulting in tremendous benefits for consumers across the country.

We on the committee want to continue down the same path of increased competition and innovation. Our aim is to strengthen energy markets and encourage innovation throughout the electricity sector, giving consumers more choice and greater control over their energy decisions while also benefitting the environment.

Today's hearing gives us the opportunity to look at PURPA with fresh eyes and evaluate what effect it is having on evolving electricity markets and the modern-day consumer.

Given the fact that PURPA was written nearly 40 years ago and the U.S. electricity system is undergoing significant transformation, now is the time for the committee to review PURPA

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and its associated impacts.

This review includes discussing the original intent of specific PURPA provisions and determining if these provisions are still working successfully today.

For example, in today's hearing we will review the requirements connected to the mandatory purchase obligation, the effectiveness of the one-mile rule when designating qualifying facilities and the various methods states are using to calculate avoided costs.

The committee understands that many stakeholders in the electricity sector are closely following potential PURPA reforms.

In fact, I know this is true for my constituents in eastern Oregon where we have more than 100 qualifying facilities operating as a direct result of PURPA.

So in addressing this topic, we want to make sure that all stakeholders, all of them, have an opportunity to be heard, which is why we are holding the hearing today and why we will continue to engage proactively with all stakeholders, moving forward.

In all that we do on the Energy and Commerce Committee, we strive to focus on the needs and interests of American consumers. When we are successful in this pursuit, I am confident that everything else will find its proper place.

With that, I look forward to the remainder of the hearing and better understanding how PURPA is affecting consumers across the country.

And with apologies, I know we had a couple of hearings going 1 2 on so I've got to go to another one and be back and forth. 3 thank you for your testimony. It is most enlightening and helpful in our work, and I yield back. 4 5 Mr. Upton. And we have a bill on the floor. 6 The Chairman. And we have a bill on the floor and a Korean 7 briefing and oh, it is -- lots going on. 8 Mr. Upton. Gentleman's time is expired. I know Mr. Rush is running a little bit -- any on the minority side wishing at 9 10 this time? Seeing none, we will go right then to the testimony 11 by our witnesses.

We are joined first by Mr. Frank Prager, vice president of Policy and Federal Affairs for Xcel Energy. Welcome. Your testimony is -- all of your testimonies are made part of the record and if you would take no more than five minutes to give a summary of that, that would be great and start with you.

Thank you. Welcome.

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1	STATEMENTS OF FRANK PRAGER, VICE PRESIDENT, POLICY AND FEDERAL
2	AFFAIRS, XCEL ENERGY; TODD GLASS, COUNSEL, SOLAR ENERGY
3	INDUSTRIES ASSOCIATION; KRISTINE RAPER, COMMISSIONER, IDAHO
4	PUBLIC UTILITIES COMMISSION; STEPHEN THOMAS, SENIOR MANAGER,
5	ENERGY CONTRACTS, DOMTAR PAPER COMPANY; TERRY KOUBA, VICE
6	PRESIDENT, IOWA OPERATIONS, ALLIANT ENERGY; DARWIN BAAS,
7	DEPARTMENT OF PUBLIC WORKS FOR KENT COUNTY, MICHIGAN
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9	STATEMENT OF MR. PRAGER
10	Mr. Prager. Thank you very much, Mr. Chairman.
11	Members of the committee, my name is Frank Prager. I am vice
12	president of policy and federal affairs at Xcel Energy. I am
13	pleased to be here today to talk to you about PURPA and PURPA
14	reform.
15	Xcel Energy is a public utility holding company
16	headquartered in Minneapolis, Minnesota. We serve parts of eight
17	Western and Midwestern states including Denver, where I am from.
18	We are the nation's number-one utility provider of wind
19	energy. We have been that held that distinction for a dozen
20	years. Xcel Energy currently has over 6,700 megawatts of wind
21	on its system and is currently in the process of adding an
22	additional 3,400 megawatts of wind.
23	Renewable energy is a big part of our energy portfolio. We
24	are also in the process of decarbonizing our electric grid. Xcel
25	Energy has already reduced its CO2 emissions by 30 percent from

2005 levels and are on a path, if we continue to see technological 1 2 advancement in the renewable energy area, to achieve a 60 percent 3 reduction by 2030. Our customers like renewable energy. They like the fact 4 that we are decarbonizing our electric grid. But they love the 5 fact that we are able to do it at a low price. 6 7 We actually are now in the process of implementing a strategy 8 we call steel for fuel under which we are actually reducing our 9 carbon dioxide emissions while at the same time reducing our 10 customers' energy rates. And as I say, our customers are very 11 fond of that strategy. As strong proponents of cost-effective renewable energy, 12 Xcel Energy believes it is time for Congress to reform the outdated 13 14 PURPA statute. As described in my written testimony, the energy 15 market fundamentals that led to the adoption of PURPA no longer 16 exist. 17 Today, we live in an era of relative energy abundance rather 18 than the energy crisis that existed at the time PURPA was first 19 adopted. Customer energy use is flat. 20 Renewable energy is no longer a niche technology but a 21 growing part of our energy portfolio. Robust wholesale energy 22 markets and least-cost resource planning have facilitated 23 market-based acquisition of energy. PURPA was designed to address energy challenges of the 1970s 24 25 that no longer exist and are inconsistent with the modern energy marketplace.

Under PURPA's must take provisions, QFs can displace energy from existing more efficient power plants, thereby raising costs for our customers.

QFs can force utilities to take power outside of the state utility planning processes. Those are the processes that states use to assure a reliable and cost-effective energy system.

For example, in Colorado, a QF developer informed Xcel Energy that it had been -- it had intended to develop 19 separate QF facilities, each of 80 megawatts.

Although Colorado PUC regulations are clear that those QFs must participate in the resource planning process, this QF developer declined to do so.

It demanded that we enter into a long-term contract for its contemplated 1,520 megawatts of QF energy. Litigation with that developer is ongoing.

However, its claims demonstrate one of the key problems associated with PURPA. QFs can operate outside state resource planning and thus force electricity consumers to pay for energy they do not need.

PURPA can also interfere with transmission planning. That same QF developer has proposed to put 480 megawatts, almost a half a gigawatt, of its power in a remote location far from our load centers in an area where we do not have adequate transmission capacity and an area where the existing transmission capacity is

subscribed by existing solar facilities that are under contract to Xcel Energy.

If this QF is successful in putting its power to Xcel Energy, we will be required to spend millions of dollars in transmission of grades and will have to work in order to make sure that our existing solar facilities have access to the electricity marketplace.

The other problem with PURPA, which is one the chairman identified, is the ability of some QFs to game the PURPA regulations in particular with regard to the one-mile rule.

Under its terms, the QFs are limited to 80 megawatts and PURPA -- and FERC has implemented that 80 megawatt limit through the one-mile which requires the two QFs be separated by at least a mile.

Some -- unfortunately, FERC has allowed some developers to circumvent this rule. In our Texas service territory, FERC found two separate segments of a larger wind project -- a larger wind project with a single owner and a single interconnection -- literally, one project to be -- considered to be two separate QF projects because the developer had made certain that no two wind turbines from that project were located within a mile of one another.

Thus, a project that greatly exceeded PURPA's 80 megawatt limit was able to force Xcel Energy to buy power from it at the avoided cost rate.

1	We encourage Congress to consider legislation that would
2	help address these and other problems with PURPA. Even without
3	PURPA, the renewable energy market has never been stronger and
4	QFs would have the opportunity to compete for a growing piece of
5	the renewable energy pie.
6	Thank you again. I would be happy to answer any questions
7	that you have.
8	[The prepared statement of Mr. Prager follows:]
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1 Mr. Upton. Thank you.

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We are joined next by Todd Glass, counsel to the Solar Energy Industries Association. Welcome.

STATEMENT OF MR. GLASS

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Mr. Glass. Thank you.

Mr. Chairman, distinguished members of the subcommittee, good morning. My name is Todd Glass. I am an energy lawyer who represents developers and financiers of independent solar project -- solar-powered projects and the solar industry in energy regulatory matters.

I am delighted to appear on behalf of the Solar Energy Industries Association with regard to PURPA, its original objectives and its relevance to customers today.

SEIA is the national trade organization for the solar industry in the United States, representing more than a thousand organizations that promote manufacture, install, and support the development of solar energy around the United States.

SEIA seeks to expand markets, remove market barriers, strengthen the industry and educate the public on the benefits of solar energy.

PURPA's original objectives were to do two primary things
-- to increase the diversity of supply by type fuel source, size,
and ownership, to strengthen national energy security in the
nation's electric supply.

Fuel diversity remains essential to our national energy security and PURPA continues to provide the means to ensure the increased diversity of supply, particularly with regard to

fuel-less generation resources.

PURPA's second major contribution was to create competition by -- that forces prices down, that benefits consumers by eliminating utilities' anti-competitive actions against competitive generation.

Independent generation puts downward competitive pressure on prices and benefits consumers by reducing the cost of electricity. As new technology such as solar are deployed, the price of delivering power to consumers will continue to decrease.

Those two objectives have yet to be fully achieved. PURPA remains an essential federal legislation underpinning both diversity as well as competition in the electric power industry.

The U.S. solar industry can compete. As outlined in my testimony, solar energy has experienced a rapid decline in cost over the past decade to become a true economic alternative and competitor to traditionally-owned utility generation.

Solar prices have become competitive with wind and natural gas fuel generation. Solar installations, however, are principally owned by independent power producers who, through innovation and persistence, have been able to withstand the competitive pressures today to build and finance their project.

With only a fraction of those installations actually contracted for under PURPA's must purchase obligation, PURPA as a whole remains an essential back shield -- a backstop against anti-competitive conduct for all independent power and a backstop

for financing these independent power projects.

Electric utilities in the United States are among the most enduring long-lived monopolies in the United States. As Congress recognized in 1935, electric utilities must be regulated in order to protect the public interest.

In 1978, Congress created PURPA. PURPA is not an environmental law. Rather, its provisions provide for energy conservation in a unique federalism system that eliminates discrimination against co-generators and small power producers, which you correctly called QFs, by requiring interconnection, wielding of their power, and purchasing their power at a price no greater than the incremental cost of buying that electric power from alternative sources.

With its passage, PURPA became the bedrock federal law ensuring competition in wholesale power markets. Soon after FERC promulgated the regulations, utilities started fighting PURPA and its mandates.

Indeed, 40 years later, they are still fighting its mandates. Why? Utilities would simply prefer to buy generation -- they prefer not to have to buy generation from small diverse UFs that don't fit within -- neatly within their plans.

They would rather build and rate base larger generation facilities and maintain a controlled vertically-integrated monopoly or buy through power purchase agreements through our RFPs.

They have never liked PURPA and they still don't like PURPA 1 2 Solar power PURPA projects are not a real problem. 3 As shown in my testimony, in 44 states solar energy in the last year totaled less than 5 percent of the total energy used 4 5 and in a vast majority of states it is less than 1 percent. 6 Of that amount of total installed solar capacity, only 20 7 percent is actually based upon a PURPA must-purchase obligation. 8 Due to land usage and power density, solar power is not an 9 industry that is abusing FERC's one-mile rule. Notwithstanding 10 the penetration, our industry is putting competitive pressures on energy prices and benefitting those consumers by forcing the 11 12 utilities to look at lower cost power. 13 So PURPA is about diversity -- fuel size, type, and ownership 14 and competition. U.S. solar industry is here to compete, to 15 create jobs, and investment and create tax base in both urban and 16 rural America to make the -- and to make the electric grid more 17 diverse and secure. 18 SEIA strongly encourages Congress to continue supporting competition by ensuring independent generators like solar can 19 20 compete. 21 Thank you, and I look forward to your questions. 22 [The prepared statement of Mr. Glass follows:] 23 24 **********INSERT 2******

1 Mr. Upton. We will next hear from Kristine Raper, 2 commissioner for the Idaho Public Utilities Commission.

STATEMENT OF MS. RAPER

Ms. Raper. Thank you, Chairman Upton.

Distinguished representatives, my name is Kristine Raper.

I am a commissioner with the Idaho Public Utilities Commission and I want to thank you for the opportunity to come and participate in this panel today and I look forward to any questions that will be asked after the presentations.

A couple of initial matters that I feel like I need to address, issues that often get conflated within this PURPA discussion but are truly separate and distinct.

One is promoting renewable generation and maintaining PURPA are not interchangeable concepts. They are not the same thing.

One can exist without the other. And number two, there is a misconception that anyone who seeks changes to PURPA is somehow anti-renewable or opposes a diverse resource portfolio, which is not true.

Arguing that renewables are beneficial alternatives to fossil fuels and touting the value of a diverse resource portfolio misses the point.

This is about a law which is being manipulated to the detriment of ratepayers and state commissions are struggling to balance the requirements of the act with reliability of the grid and ratepayer indifference, all of which the act requires.

PURPA is not the only way to develop renewables but too much

PURPA on the grid does stifle the development of non-PURPA renewables.

PURPA developers want to make it look like this is an attack on renewables as a whole. It is not. This is not an apples to

The must-purchase obligation makes a QF project very different from other renewable projects. Utilities must absorb energy whether it needs the energy or not.

It is not dispatchable energy that the utility can pull onto the grid when it needs it. QF projects are gaming the parameters of PURPA to maximize profit without any regard to the effect on ratepayers and there are no realistic curtailment allowances that the states or utilities have been able to utilize. These things do not apply to non-PURPA non-QF renewable resources.

Mr. Glass' reference to falling costs actually proves my point. If the price of solar has dropped dramatically from 2009 until now, well, we have contracts -- multiple dozens of contracts where in 2009 they signed onto a 20-year agreement at the prices in 2009.

If prices have dramatically reduced since 2009 and we are only eight years out, imagine over the 20-year life of that contract how much those prices inflate each year with the reduction of costs -- true costs of solar, and the longer the contract the greater the discrepancy.

If PURPA is to remain, then there need to be some changes.

apples comparison.

I urge you to consider some of the following solutions. 2 Lowering the 80 megawatt qualifying threshold for small renewable projects -- Congress' Energy Policy Act of 2005 changed 3 a threshold for QFs within organized markets to a 20 megawatt 4 5 threshold for a presumption that they could be competitive within the market. 6 7 Well, that is a huge difference. Is 80 megawatts small or 8 is 20 megawatt competitive? So I would urge you to look at that 80 megawatt threshold that exists. 9 10 If a QF is within a balancing authority of an energy imbalance market like we have in the West, I also urge you to consider 11 applying that threshold under the Energy Policy Act to QFs within 12 an energy imbalance market. 13 14 I recognize that there are none in it now and that perhaps 15 is because they wouldn't get the prices that they can otherwise 16 get under QF contracts within the states. 17 But that doesn't mean that they are not meeting the 18 requirements of the Public Utility Regulatory Policies Act. Ιt 19 means that the QF isn't making as much money. 20 But it doesn't mean that QFs aren't competitive within that 21 environment. 22 Please allow states the discretion to address gaming. It violates the intent of the act and it is harmful to ratepayers. 23 I ask that you modify the must-purchase to consider need and 24

allow for reasonable curtailment. Consider what battery storage

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1	is and whether it meets the parameters of the act. And finally,
2	implement a statute of limitations on how long a QF can file a
3	complaint with FERC.
4	I have 13 seconds and I know this wasn't in my written
5	testimony but there is currently no existing statute of
6	limitations for when a QF can take a state decision and file with
7	FERC for alternative treatment.
8	I look forward to answering any questions that you have.
9	[The prepared statement of Ms. Raper follows:]
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1 Mr. Upton. Thank you.

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Stephen Thomas, senior manager energy contracts, Domtar Corporation. Welcome. Mic -- turn the mic on. 3

STATEMENT OF MR. THOMAS

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Mr. Thomas. Thank you, Chairman Upton, members of the committee.

My name is Steve Thomas. I work for Domtar --

Mr. Upton. Just pull it just a little closer to -- thank you.

Mr. Thomas. I have worked for Domtar and I am here representing IECA, or I-E-C-A, which is the Industrial Energy Consumers of America.

They are a member-led nonpartisan organization that is made up of leading manufacturers. Domtar itself has 23 manufacturing facilities across the U.S. The largest eight or nine of these are PURPA QF facilities.

So the largest eight or nine of these are our PURPA-qualifying facilities. As such, we believe that PURPA has done its job and in its current form is doing what it is supposed to.

If there is issues that need to be addressed, we filed, I think, 12 recommendations either, you know, through new legislation or through guidance from the FERC to state commissions that we think work for us.

But one thing that is important is I want to really make a distinction between QFs that are co-generators, like ourselves, and QFs that are small power generators. And co-generators, what

we do is we take either heat before it is used in a process or 1 2 heat that is a by-product of a process and create electricity, 3 and PURPA allows us to do that. And that is really important as manufacturers because it 4 helps reduce our costs, makes us more competitive in global 5 6 markets. 7 With -- by doing this, there's something else that happens. 8 We are more efficient than generation from a utility because we 9 not only use that heat to create electricity, we use that heat 10 to create products. And another important distinction, from co-generating 11 12 manufacturing facilities is we have a very large permanent job 13 base. 14 So from an economic development standpoint, once the 15 facility is built, we support a huge number of jobs -- you know, 16 sustainable jobs going forward. We are not against renewables. 17 We use renewable energy in our own generation. Domtar 18 itself is -- more than 70 percent of the energy we create at our 19 mills is from renewable sources. So the important thing is, again, that distinction between 20 21 the co-generators and small OFs. So all of our recommendations 22 that we have offered are based on that clear distinction, a lot 23 of which we have already talked about. 24 So what are some of those avoided costs is a major issue for 25 us because as co-generators there's something that doesn't get

1 realized. As an industry, we still buy 85 percent of our power 2 so we are net consumers, and things that affect the price of electricity, the reliable -- the reliability of electricity hurt 3 4 us. So we are squarely -- our interests align with consumers. 5 We want affordable power that is reliable. 6 7 So the avoided cost issue is a really big deal. I think four 8 or five of our points are around avoided costs. We don't think 9 utilities should be forced to buy capacity when they are flush with capacity and have adequate reserve margins because that hurts 10 us as consumers, you know, whether we are consuming at home or 11 12 at our place of business. The one-mile rule -- our footprints are large. 13 14 industries like ourselves have a very large footprint a lot of 15 times in rural areas of the country, and that large footprint --16 the one-mile rule is small. 17 We think that should be larger. Again, so we are not forced 18 to pay for capacity that is not needed on the system and the -another one that is critical to us is curtailment. 19 You know, when the grid is surplus generation, you know, we 20 21 want to be lower in the stacking order than renewables because 22 we are supporting jobs, because we are creating products that are 23 important to the communities that we serve. 24 So with that, I will look forward to taking any questions

you have.

[The prepared statement of Mr. Thomas follows:]

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1 Mr. Upton. Thank you.

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Next, Terry Kouba, vice president of Iowa Operations of Alliant Energy. Welcome.

STATEMENT OF MR. KOUBA

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Mr. Kouba. Good morning, Chairman Upton, and members of the subcommittee.

My name is Terry Kouba and I am the vice president of Iowa Operations for Alliant Energy, which is a Midwest utility serving 1.4 million electric and gas customers throughout 1,300 communities in Iowa and Wisconsin.

First, let me thank the subcommittee for holding this timely oversight hearing. The main focus of my testimony today is to re-evaluate PURPA in light of the law's negative effect on increasing wind energy costs for our customers in Iowa.

I was a national leader in wind energy deployment, deriving 36 percent of the state's electricity from wind, a statistic to which Alliant Energy is a very proud contributor.

Currently, we have more than a thousand megawatts of owned and operated wind plus purchase power agreements from independent power producers and we are in the cusp of executing a plan to add an additional gigawatt of wind energy, a \$1.8 billion investment in Iowa to help serve our customers.

We are a long way from 1978 when PURPA was enacted and I was a sophomore in college. Forty years ago, the country endured an energy crisis while renewable energy was in its infancy as a cost-effective generation resource.

Now, two-thirds of the U.S. is served by wholesale region

electricity markets like the Midcontinent Independent System 1 2 Operator, or MISO, in Iowa. States across the country in organized and unorganized 3 markets are able to competitively solicit renewable energy. 4 5 Despite the market-driven deployment of renewable energy in Iowa and across the nation, we are still subject to PURPA's outdated 6 7 mandatory purchase obligation which has increased electricity 8 cost for our Iowa customers. Let me explain. Under the law, we are required to purchase 9 10 power from PURPA-designed qualified facilities. These QF resources are not procured through a competitive bid process 11 12 despite having access to the MISO market. We cannot negotiate on the price paid for this energy and 13 14 project locations are chosen for the benefit of the QF investor, 15 not for the benefit of our customers. These QFs that violate the intent of PURPA by structuring 16 17 their projects into separate LLCs to get around FERC's 20 megawatt 18 cap -- size cap in organized markets. If my company went to the Iowa Utility Board to obtain 19 regulatory approval for one of those projects under a purchase 20 21 power agreement with an independent power producer like that, I 22 am confident we would be rejected because the cost premiums 23 associated with that power would be too high. 24 The IUB would likely question the need for this expensive 25 renewable power when it is possible to obtain cheaper renewable

electricity, especially in Iowa through other means, and the IUB 2 would have an excellent point. The real losers in this situation are not utilities, rather, 3 customers who are forced to pay higher costs for renewable 4 5 generation that can otherwise be procured at competitive prices. And when a quarter of our customers' income is under \$25,000 6 7 per year, that is a real concern for our company and our customers. 8 We believe that these larger QFs should be treated like any 9 other independent power producer and be required to sell energy 10 directly into the organized markets like MISO or negotiate for PPA contracts with a utility like any other independent power 11 12 producer. Doing so would reduce cost to customers and minimize system 13 14 impacts that might impair reliability. Congress can take steps 15 to improve implementation, mitigate negative impacts on customers 16 in the grid, and better reflect current market conditions by 17 modernizing this law. 18 We are encouraged by legislative interest to reform the law in several key areas and we encourage FERC to implement several 19 recommendations found in my written testimony on an 20 21 administrative basis. 22 Thank you for the opportunity to appear before the 23 subcommittee today and I look forward to the discussion and any 24 questions you may have. 25 [The prepared statement of Mr. Kouba follows:]

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1 Mr. Upton. Thank you.

Mr. Baas, good to see you. Director of the Public Works for

Kent County, Michigan.

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1 STATEMENT OF MR. BAAS 2 3 Mr. Baas. Good morning. Sorry about the color change, but welcome. 4 Go blue. 5 Mr. Baas. Mr. Upton. Go blue is right. 6 7 Thank you, Chairman Upton, for providing an Mr. Baas. 8 opportunity for me to testify this morning. I am the director 9 of Kent County --10 Mr. Upton. You might just pull that mic to you a little 11 closer. I am the director of the Kent County Department 12 Mr. Baas. of Public Works in Michigan. I want to discuss this morning how 13 14 PURPA relates to our waste energy facility. 15 I would also like to express support for the mandatory 16 purchase obligation under PURPA and encourage Congress to consider modifications that could enhance PURPA in its 17 18 application and effectiveness for waste energy qualified 19 facilities. PURPA has been a critical part of Kent County's waste energy 2.0 21

facility for the last 27 years. Kent County DPW allocates funds for municipal infrastructure for five public services.

The waste energy facility is critical in that mission. provide a sustainable and integrated solid waste management We provide base load renewable electricity. We offer system.

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grid support and reduce the need for long-term or long distance transmission. Energy from 76 waste energy facilities nationwide account for more than 2,500 megawatts of renewable energy, 14 billion kilowatts of electrical generation, and avoids 13 million tons of greenhouse gas generation. Our facility in Kent County provides an alternative to land filling that so many local residents, businesses, and industry desire. Facilities like ours are a municipal infrastructure and we must remain competitive in the energy markets. Unfortunately, many have closed and more are at risk of failure, which will strand these local government assets. A significant contributing factor is the outdated and inadequate elements of PURPA policy that fails to value local government and the role that these power plants have. I have submitted detailed documentation of these challenges

so I will just highlight a few. Mandatory purchase contract lengths are unrealistically short and the avoided cost pricing It is no longer reflecting the intent of PURPA and has eroded. the value of our system.

Even the facilities between 20 and 80 megawatts are experiencing the same challenges. In Michigan, we are engaged with the Public Service Commission to fight for fair, reasonable, and stable ablated cost.

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1 While the utility we work with has received \$759 million in 2 rate increases since 2008 and has another \$172 million pending before the PSC, the PSC is attempting to devalue the value of our 3 electrical generation by 24 percent. 4 5 By doing that, they would take us back to rates that were paid to us 20 years ago. The utility is also attempting to 6 7 unilaterally cancel our contract with one year's notice, which 8 is very difficult for us. 9 Local governments also own assets where's electricity 10 regulations hinder using our power. For example, we have 11 airports, wastewater treatment plants, and courthouses and many 12 other facilities that require electricity. But it is very difficult to move that electricity to those 13 14 facilities. That's why it is so critical that when we receive 15 realistic pricing that we are in such a better place. Kent County uses a 10-year planning horizon for capital 16 17 refurbishment as does any utility that invests in plan 18 Should we face a situation where we would have a reliability. contract cancelled with one year's notice it could very well lead 19 20 us to early closure. Without certainty in energy revenue and contract length, we 21 22 face a lot of uncertainty in how to make investments, how to invest in maintenance and in our operations. 23 24 Modifications to PURPA are necessary to ensure long-term 25 viability of this municipal infrastructure. I would welcome

1 Well, thank you all, and we are going to now move 2 to questions from members here and we will limit our questions and answers to five minutes. 3 I guess the first question that I have for each of you is 4 5 we, first of all, appreciate your testimony. Let us talk just a little bit about the statutory and regulatory changes to 6 7 eliminate the abuse or gaming, as Ms. Raper talked about -- the 8 one-mile rule. Would you oppose or support regulatory changes 9 to eliminate such and how might that look like? And maybe we will start -- Ms. Raper, since you raised it 10 11 we'll start with you and we'll go in reverse. What should we do 12 about the one-year rule? Thank you, Chairman. 13 Ms. Raper. 14 Mr. Upton. Or the one -- I am sorry, the one-mile rule. 15 Sorry. 16 Ms. Raper. Sure, Representatives. I think the one-mile 17 rule alone it is neither here nor there. I think changing the 18 one-mile rule to a five-mile rule doesn't eliminate the problem. The issues with the one-mile rule that allow things like wind 19 and solar to overbuild, in my opinion, are that if there's only 20 21 one mile between projects they have the same interconnection. 22 They are financed by the same thing. Just because they are named alpha bravo charlie delta echo doesn't make them different 23 24 projects. 25 And so a one -- changing the one-mile rule only without

changing some of the considerations for what truly makes it a 1 2 separate entity it wouldn't solve the problem. There need to be other considerations taken into account in 3 order to -- because my understanding of the one mile rule is that 4 5 it was intended to make sure that they were separate entities that were doing these builds and it hasn't worked to that effect. 6 7 Mr. Upton. Mr. Thomas. 8 Mr. Thomas. Thank you. You know, again, as a manufacturer our footprints are so much larger than that one-mile. You know, 9 10 our concern, again, goes back to reliability. A lot of times the one-mile or three-mile circle -- the 11 12 generation is all the same type. If it is all solar, it is all going to go down when the sun is not shining. 13 If it is all wind, 14 it is going to go down when the wind is not blowing. Or it is 15 going to over produce when the wind is blowing. 16 So, you know, the generation type comes into effect there, 17 too, and, again, a much larger footprint would not affect 18 manufacturing. 19 Mr. Upton. Mr. Kouba. Yes. As I answer that question, let me make it 2.0 Mr. Kouba. 21 clear that I am here today advocating on behalf of our customer. 22 I, along with my company, is also an advocate for renewable energy. 23 As I said in my opening statement and my written statement, we have significant renewable energy resources, primarily wind, 24 25 and we are adding a significant amount more.

1 We are also about to energize the most powerful solar 2 facility in the state of Iowa so we are definitely advocates of 3 renewable energy. With respect to this issue, what we have is sophisticated 4 5 foreign-owned companies that are planning, proposing, and 6 investing in projects in Iowa that in total exceed the 20 megawatt 7 PURPA cap. 8 Because they evidently do not want to compete with the generation market in Iowa and MISO, and make no mistake about it, 9 10 the generation market in Iowa with all our wind is extremely competitive, they disaggregate these facilities into much smaller 11 12 projects, organize under separate LLCs but ultimately through the 13 same ownership. 14 They then take those smaller facilities that get below the 15 20 megawatt cap. They spread them apart so they are a mile apart and then they can qualify for PURPA plus we can't challenge that. 16 17 So we would propose to eliminate that one-mile rule so we 18 can challenge these projects that are, clearly, disaggregation that ultimately end up costing our company, in one case, 20 percent 19 more than what we could get with other projects. 20 21 I know that I am running out of time. Mr. Baas, Mr. Upton. 22 it doesn't really impact your folks all that much. Let me go to Mr. Prager and Mr. Glass and my time will have 23 24 expired.

Thank you, Mr. Chairman.

Mr. Prager.

We actually have an actual experience, which I mentioned in my oral testimony, in Texas where we had someone come in and actually game the system in order to use the one-mile rule to separate a much larger wind project into two different QFs and be able to force the avoided cost pricing.

I think Commissioner Raper really hit it on the head. We need to have a process in place at FERC where FERC looks at the reality of what's happening.

It doesn't elevate the form of its one-mile over the substance of what's actually happening on the ground. If you have one project subject to common control, subject to common interconnection, treated in every respect as one project, even if particular segments of that are a mile apart, they should be treated as one project and therefore not subject to the PURPA requirements.

Mr. Upton. And Mr. Glass, quickly.

Mr. Glass. We don't think the one-mile rule is really an issue for the solar power industry. We use the land more intensively on, like, for instance, a wind farm our average project sizes are such that it just doesn't make sense.

We think it works and we have no problem with actually FERC taking a look at the one-mile rule. However, the one thing that should happen is that the rule needs to be clear and easily determined without an administrative review or result because there's no way to invest capital if the utility or the utility

3 Mr. Upton. Thank you. 4 Mr. McNerney. Mr. Peters. Thank you, Mr. Chairman. 5 I want to say, first of all, I grew up in a Wolverine 6 7 household, not a Spartan household. So I am okay with the color. 8 The -- so one of themes of this testimony has been that since 9 1978 the renewables markets have matured in a way that what was 10 originally conceived under PURPA is probably less important now 11 or maybe less needed now. Mr. Thomas, you raised the issue I wanted to explore about 12 Is it your contention that the nature of that 13 co-generation. 14 particular energy is something that still PURPA needs to rely on? 15 Can you explain a little bit more about what you were -- how you were distinguishing cogen from other kinds of renewable energy 16 17 generation? 18 Sure, and thank you for the opportunity to, you Mr. Thomas. The idea of co-generation is that it 19 know, further emphasize. is -- that generation is co-located with load. 20 So we use what is steam or heat that would otherwise go to 21 22 waste to create electricity that we use on site. So that part of it is all about the economics of producing our products cheaper. 23 24 It has side benefits for the grid. If we were just a load 25 on the grid, the utilities would supply us from a distance.

commission is going to gotcha after you've tried to finance a

project. It is just not going to happen.

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1	think 7 percent line losses is not uncommon. So by providing a
2	lot of our energy ourselves we reduce that need.
3	Mr. Peters. Right. So you are doing co-generation because
4	it supports your facility's operations. It lowers your costs.
5	You are not trying to produce energy offsite you are using it
6	on site?
7	Mr. Thomas. Right. We sell
8	Mr. Peters. So you are really not incentivized by PURPA to
9	do co-generation?
10	Mr. Thomas. Not at all.
11	Mr. Peters. Okay.
12	Mr. Thomas. We are we are consumers. We don't want high
13	prices. We want
14	Mr. Peters. I got it.
15	Mr. Thomas because we don't sell power back to the grid
16	except for just rare short periods. None of our facilities are
17	net generators month to month. They might, from one hour to
18	another, generate a little bit. But for the most part
19	Mr. Peters. I see. I just wanted to clear that up because
20	I might have Does anyone have a reason why there's not a
21	statute of limitations on these challenges? Does anyone
22	understand or think that that is a good policy? Some heartburn
23	about changing that? No?
24	Mr. Glass, I would just like you to maybe respond to this
25	the theme of with lower renewables costs maybe the role for

PURPA has changed.

Can you -- can you tell us kind of how you think the -- what changes would you acknowledge have been made -- what kind of easing could happen and what's the role of PURPA, going forward, and encouraging renewables?

Mr. Glass. Well, you know, and one of the fine testimonies that was submitted talked about disco balls and shag carpeting, and I commend you for that. I grew up in Spokane, Washington, in the '70s. It was a great time.

But competition is not out of style and it didn't go away with the '70s. I think that if you look at the renewable energy industry, you know, we are up but really natural gas has taken the position of coal and a little bit of nuclear and taken over for petroleum-based generation for that.

But overall, the amount of diversity -- we have not yet achieved the diversity that we need. The more important point is that this idea that somehow or another avoided costs are too high, that is just wrong.

And I would like to -- I would like to think that the committee needs to look into that. The subcommittee needs to look into that because the utilities and the utility commissions control avoided cost.

There is a number of methodologies by which they do that.

We've been in a declining cost system and in some cases some

utilities and state commissions haven't got to avoided costs that

1 reflect the true market price. 2 That is not a reason to do away with legislation itself. Ιt is a reason to fix the avoided costs if that is what needs to 3 4 happen. Okay. Would someone like to respond -- maybe 5 Mr. Peters. Ms. Raper or Mr. Kouba -- on that issue, the avoided cost issue? 6 7 Ms. Raper. I would be happy to. Thank you. 8 Congressman, regarding the avoided cost issue, could we 9 change our avoided cost in Idaho to be more reflective of a market 10 price? Yes, we could. Would we damage things like the co-generation that is really 11 12 not manipulating the system, not attempting to take advantage at the -- at the harm of rate payers? They're just using a by-product 13 14 of what their normal market is. 15 We would rather be able to have an avoided cost that truly 16 supports what PURPA intended it to be -- to be able to bring on 17 those small power producers -- renewable power producers and --18 and if we reduced it to a market price then we would see probably 19 complete elimination of any of those PURPA projects. 20 is the answer. 21 Mr. Kouba. Mr. Peters. 22 I will make one quick comment. We did recently change our avoided costs and one of those foreign developers 23 24 working on a new project then complained that it was too low and

is in with the Iowa Utility Board wanting us to basically double

1 the avoided costs. 2 So I think there is some things that all of us can do to make 3 the avoided costs more realistic. But we still have to agree that no matter how you offset we have a very volatile market out there 4 5 that changes often. So we are going to have to make sure that we are constantly updating the avoided costs. 6 7 Mr. Peters. Thanks for the testimony. My time has expired. 8 Mr. Walberg. [Presiding.] I thank the gentleman. 9 Now I recognize the gentleman from West Virginia, Mr. 10 McKinley. Mr. McKinley. Thank you, Mr. Chairman. 11 Mr. Glass, I think we are all familiar with the fact that 12 the utilities -- the electric consumption in this country has been 13 14 growing about the last eight years. So there has been this ongoing conflict in the producers of 15 electricity to maintain their market share and I support the idea 16 17 of the renewables in a big way. I am delighted that they are --18 but as a result of that, someone's losing. 19 There is coal producers, coal generating, gas generated, at the expense that seemingly the federal government is trying to 2.0 21 support through PURPA and others and tax credits -- the use of 22 more solar, wind. What level -- we are currently around 15 percent of 23 24 renewables, I believe, creating power in America. If we continue 25 this, what is the magic number?

1 And we are subsidizing it at a pretty good clip. 2 it is \$28 per megawatt hour. I had some notes -- wind has \$28 3 I don't know what solar is with that. per megawatt hour. What's the right level? 4 Should we continue to be providing subsidies and where did 5 we reach a point that we stopped the subsidies? Is it do we want 6 7 to get to 50 percent renewables in this country? 8 Were we trying to get to 100 percent? When do we stop the subsidies? 9 10 Mr. Glass. Thank you for the question. The first thing I would say is that I think the DOE staff 11 12 report that came out made very clear that it is not renewables causing the issues that you are talking about. 13 14 Rather, it is the low cost of gas, which is a great domestic 15 source of energy in this country and all of that. So --16 Mr. McKinley. No, no, no. I want to -- stop you on that, 17 Five of the last eight years there has been a rather --18 I am not arguing over the price of gas. Renewables are continuing 19 to expand, and I applaud that. But it is at a cost. 20 Somebody is losing out market share as a result of that, and 21 it could be gas. It could be coal. It could be nuclear. 22 Something is -- somebody is being affected. Where do we go? If it is 15 percent -- is the objective -- do you think we 23 24 are -- should we still be subsidizing companies when they 25 represent 50 percent of the market share?

2 Mr. McKinley. Could you answer that, please? It is a yes 3 or no. Mr. Glass. 4 Sure. Sure. I don't have a particular goal. I don't have a federal RPS 5 goal -- renewable portfolio standard goal -- and I don't think 6 7 that -- I am at least not prepared to speak on behalf of SEIA as 8 to what that might be. The one thing I would say is that solar right now is less 9 10 than 1 percent or just about 1 percent of the total, and I think 11 it could grow more, because the reason is I am not so much worried 12 about who is winning and losing market share. I am more interested in reducing the cost of power for consumers and if --13 14 Mr. McKinley. Well, I am interested in keeping jobs for the 15 people in -- that are in the producer --16 Mr. Glass. I would love to talk about it. The solar 17 industry --18 Mr. McKinley. So if I could, Mr. Thomas -- if I could reclaim 19 my time to Mr. Thomas under Domtar, you made a remark in your 20 statement. 21 The renewable energy OFs should not, in your opinion, be 22 allowed to include production tax credits or the value of renewable energy credits in their calculation when they bid into 23 24 the system. Could you explain that a little bit? 25 Sure, and thank you for the opportunity. Mr. Thomas.

Mr. Glass. Well, I --

1 Basically, what we are saying is, you know, we know It has done 2 renewables are subsidized. We don't object to that. 3 a good job of creating a renewable market. But when we start bidding into cost-base market systems, 4 5 those subsidies should not be allowed to be bid in, and that just 6 keeps it on an even keel -- on a competitive process because at 7 face value it looks like bidding in, including your subsidies, 8 lowers the price and it does in the immediate -- in the immediate. 9 But in the future, it causes generation assets that are built 10 by utilities to have to be shut down because they can't compete. 11 They're not subsidized. Once they are shut down for any length of time, then they 12 end up getting mothballed. Their customers are stuck with 13 14 capital payment on a resource that is not being used. 15 Mr. McKinley. I have got a -- this may be a fundamental 16 My time is almost up. If a utility is required to 17 purchase from a QF facility and yet they have not been successful 18 in bidding into the PJM for that market for that day, are they still required to purchase? 19 20 Mr. Thomas. I don't know that I understand the question 21 entirely. 22 Mr. McKinley. If a utility company is not -- not providing power into the grid but yet they are -- are they still required 23 24 -- when they bid in and they are not successful so they are not 25 -- they are not providing power to the grid that day or that week

1 but yet are they still required to purchase power from a QF? 2 Mr. Thomas. And PJM is a competitive market. I don't know 3 the answer --4 Mr. McKinley. Okay. -- how a utility would react to that. I know 5 Mr. Thomas. in our situation at PJM where we -- where we might sell generation, 6 7 if we don't make the bid we don't generate into the grid. 8 Mr. McKinley. Yeah. I just wondered whether you are 9 required, though, to still purchase power under QF. 10 I yield back my time. Mr. Walberg. Gentleman's time has expired. 11 I now 12 recognize the gentleman from the state in all of our thoughts and 13 prayers, Mr. Green. 14 Thank you, Mr. Chairman, and I would like to Mr. Green. 15 thank you and our Ranking Member Rush for having the hearing today. PURPA is an interesting program borne of unique 16 circumstances in the '70s and I look forward to hearing a variety 17 18 of perspectives on its modernization from witnesses. 19 Mr. Prager, in your testimony you talk about PURPA's must-take provisions and how they affect state resource planning. 20 Can you elaborate on how the right of a qualifying facility under 21 22 PURPA can interact with local state procurement processes for 23 independent power producers? 24 Of course, you have to realize I come from Texas and we have 25 ERCOT. So it is different from the rest of the country.

1 We actually operate in the Texas Panhandle, 2 just outside of ERCOT. So our Texas facilities are actually a 3 little bit different than the ERCOT facilities. But the fundamental issue with PURPA and state resource 4 5 planning is PURPA is a must-take requirement. It is a must 6 contract requirement that happens independent of the state 7 resource planning processes. 8 So you can see in that that what happens is you end up with 9 a independent power producer that comes in as a qualifying facility and it puts the power to the utility outside of the 10 11 resource planning process. 12 Because for the renewable energy component of PURPA, those facilities are intermittent. It is very difficult for a state 13 14 which is responsible for maintaining a reliable and a 15 cost-effective power supply to ensure that those facilities are 16 integrated appropriately into the system. 17 That is why we think it is so important that we begin to find 18 a way to integrate the renewable energy requirements that are coming out of states, which are really significant right now and 19 20 are driving a lot of the energy growth -- the renewable energy 21 growth we see on our system with the PURPA must-purchase 22 requirements. 23 Okay. And your area you serve in Texas I know Mr. Green. 24 in west Texas windmills -- do you have any of that issues -- that 25 alternative rather than solar?

Mr. Prager. We -- we do have some solar and we are adding 1 2 Solar is a tremendous growing resource and Mr. more in Texas. Glass quoted my disco ball quote from my testimony. 3 I will say that we are excited about the potential for solar, 4 5 especially in west Texas and in New Mexico. But, again, it is important to do it the right way, because if you do it the right 6 7 way you can bring a lot of renewable energy to your customers and 8 do it in a way that is extraordinarily cost effective and reliable. 9 The best way to do that is through the state planning processes. Well, obviously, from Texas I would love to see 10 us do with solar what we have done with wind power, and for my 11 California friends I am always bragging about how we produce more 12 wind power in Texas than California. So and we like to do solar 13 14 There is a lot of hot air. 15 Mr. Peters. 16 [Laughter.] 17 Mr. Green. Well, I offered to send you a whole lot of water 18 last week. 19 [Laughter.] Mr. Green. Mr. Glass, in your testimony you talk about how 2.0 21 SEIA's members are driving down the price of solar to compete 22 favorably with all the other forms of power generation. 23 Can you elaborate on how current technological innovations 24 and efficiencies of scale have changed PURPA contracts from 25 high-cost contracts of the past to today?

Mr. Glass. Well, thank you for the question.

I've been developing and financing solar projects for about 12 years now and the price of the installed capacity has come down to about one-sixth of where it actually began when I started practising.

And this has been done through technological innovation, massive investment in capacity manufacturing as well as a lot of innovation -- technological and business model innovation that has driven down these costs to the point where, you know, we have PPAs that are now less than \$20 per megawatt hour that are being executed in various places.

We are able and look forward to installing and selling to utilities at their -- those prices.

But the avoided costs we don't control that at all. We are a price taker under the avoided cost methodology that the utility and the utility commission set.

So I would like to encourage to the extent that there are problems with avoided costs that they review those costs and if solar is the best and cheapest alternative, let us make it -- set on that and let us get more solar installed because we have 260,000 jobs that have been built over the last 12 years and we'd love to add more.

Mr. Green. Well, the original intent of PURPA was to push for alternative sources of power during an energy crisis in the 1970s.

1 Alternatives today are a booming market, and from your 2 testimony I get the sense that you see the primary purpose of PURPA is increasing competition and putting downward pressure on 3 utility companies to reducing prices for consumers. Is that an 4 5 accurate characterization? Mr. Glass. 6 Yes. 7 Mr. Green. Okay. Mr. Chairman, I thank you for holding the 8 hearing and -- because, again, in the 1970s we also had an embargo 9 on exporting crude oil and we changed that. So maybe we need to 10 look at PURPA and bring it up to date. Thank you. 11 Mr. Walberg. I thank the gentleman. 12 I recognize now the gentleman from Ohio, Mr. Johnson. 13 Thank you, Mr. Chairman. I appreciate it. Mr. Johnson. 14 And I want to thank all of our panellists for being here 15 I appreciate it. Important topic. 16 Commissioner Raper, in your testimony you state utilities 17 prepare detailed integrated resource plans and make investments 18 based on perceived need. When discussing PURPA, I think it is important to get a better 19 understanding of this process, especially, as you state, when a 20 21 QF steps in it changes many of the factors that led to the utility's 22 original conclusions. New OF resources are not contemplated by integrated resource 23 24 plans because they are not known or measurable by the utility. 25 So can you describe that process? In other words, how does

a utility prepare their integrated resource plans and make 1 2 investments based on their needs? What is that process? 3 Ms. Raper. Thank you, Congressman, and it actually goes a little bit to Congressman Green's question about the renewable 4 5 portfolio standards and perceived need. 6 A utility, every two years, does a 20-year plan of what their 7 resource needs might be based on growth and customers and 8 anticipating, based on history, what it is going to look like into 9 the future. But when a QF comes on, it just puts in a contract, you know, 10 11 it is a must-purchase. They say, here you go, we want to build. 12 So when rates are favorable to a QF they just come in. There's no way for the utility during that integrated 13 14 resource planning process to say okay, we are going to have six 15 new OFs that we are going to bring on. They're not allowed to 16 limit that. 17 They're not allowed to say we are going to have five new wind 18 resources and six new solar resources and that is all we are going to take and so we can plan for that, and we have enough caseload 19 in order to cover the intermittency of those resources. 20 21 They don't have the ability to plan for that. So what they 22 are forced to do -- what our utilities have been forced to do, and we have watched it with the integrated resource planning 23 24 process, is it's a -- it's, you know, one step forward, two steps

back.

1 They make their plan. But then they have to adjust. 2 a good thing they file a 20-year plan every two years because they 3 are having to adjust each time they come to anticipate different base load resources to guess at where rates are at right now and 4 5 what QFs may come online. 6 I was going to ask you, and maybe you answered Mr. Green. 7 this, how long it takes to develop those plans. So if they do 8 it every two years for a 20-year out cycle, does it take the full 9 two years? I mean, are they working on that for two years? Well, Mr. Kouba may be able to answer that more 10 Ms. Raper. directly as a utility. But it is my understanding that they are 11 12 constantly planning. They are constantly modifying and anticipating and doing studies on what they may need. 13 14 Mr. Green. Okay. Continuing on then, can you explain the 15 changes that might need to be made to a utility's resource plan when integrating a small power production facility? 16 17 Ms. Raper. Well, if it's a true small power production 18 facility, if it's a five-megawatt, a 10-megawatt, you know, 19 geothermal plant, then there are small -- incremental modifications that have to be made in order to balance out those 20 21 resources. 22 But when you get 100 megawatts that is disaggregated into five 20-megawatt projects, then for our utilities, I mean, it's 23

Idaho Power, on their -- during a shoulder month when the

different in the east than it is in the west.

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1	wind is blowing, their peak load can be as low as 1,100 megawatts.
2	Well, they have more QF resources online than their peak load on
3	those days.
4	So the ability for them to try to balance that is enormous.
5	Mr. Green. Okay. So how do these changes compare when a
6	utility is required to accommodate generation for multiple QFs?
7	Ms. Raper. How do the utilities compare?
8	Mr. Green. Yes. Does the process change when a utility is
9	required to accommodate generation for multiple QFs? Does it
10	make it more complicated?
11	Ms. Raper. Absolutely. Yes, because you are bringing on
12	a hundred megawatts of resources that are, one, intermittent, that
13	are, two, must take and they are not necessarily being provided
14	at an hour at a time of year and time of day when the utility
15	needs those resources, and the base load resources of the
16	utilities can only be backed off so far.
17	Hydro can't be shut off. Coal plants can't be shut off.
18	There's a minimum, you know, must run on those base load
19	facilities.
20	Mr. Green. Okay. All right. Well, thank you very much.
21	Mr. Chairman, I yield back.
22	Mr. Walberg. I thank the gentleman.
23	Now I recognize my friend from Illinois, the ranking member,
24	Mr. Rush.
25	Mr. Rush. I want to thank you, Mr. Chairman.

1 I had a question for Mr. Glass and Mr. Baas. The question 2 might have been asked and answered but I really want to know, one 3 of the most contentious issues that critics have cited PURPA's mandatory purchase obligation. Critics argue that the purchase 4 5 obligation under Section 210 requires them to purchase power that they may not need from small QFs and above market rates. 6 7 They claim that this misplaces lower cost resources and 8 unnecessarily increases rates to consumers. And I'd like to get 9 your response, Mr. Glass and Mr. Baas. 10 Mr. Glass. Glass before Baas? 11 Mr. Rush. Any way you want to do it. 12 Thank you for the question. Mr. Glass. I have already spoken to the fact that I -- if avoided costs 13 14 are being created and approved by a regulatory agency, there 15 should not be a situation in which the utility is buying at greater that its incremental cost of buying energy. 16 17 If its -- if PURPA and its implementing regulations are being 18 administered correctly, that is not a situation you'll find it 19 in. I actually think that -- and thank you for the question 20 21 because I think there are a lot of other issues that we haven't 22 really talked about yet that are being created in the PURPA 23 environment. 24 I think that there are some states that are taking particular 25 steps to eliminate OF projects altogether. They are eliminating

-- they are, for instance, reducing the term to something that 1 2 is not financeable. They are introducing other requirements such as RFPs and 3 other things that need to be satisfied before they can be -- before 4 5 a OF can locate. But the ultimate thing that has to understand if you are going 6 7 to have an independent -- a competitive independent generation 8 capacity in this country you need to have the ability to have a 9 long-term stream of revenues to be able to finance these 10 facilities. Utilities have the ability to put costs onto their customers 11 12 over a 20-, 30-year period. A utility, when it's planning to build generation, does not do it on a two-year basis, it does it 13 14 on a longer term. 15 Well, independent power is looking for the same type of 16 If we are going to put money to work we need to have that 17 long-term stream of revenues and certainty. 18 Mr. Baas, you want to charge at this? 19 Yes. Thank you for the opportunity to comment. Mr. Baas. 2.0 In Michigan, the utilities receive full cost recovery and 21 so when the Public Service Commission does rate reviews they are 22 ensuring that the utilities are being paid their full cost of 23 operation. 24 Our facility is a base load facility. It's been providing 25 electricity for 27 years. We certainly are in the planning of

the utility and have been there for a long time. 1 2 When we look at what the Public Service Commission is doing in terms of determining avoided cost versus what the utilities 3 are being paid, there is a significant difference. 4 And so we believe we are very competitive and we are seeing 5 utilities actually attempt to build new generation capacity at 6 7 our expense. 8 When they want to move us to a one-year notification on a 9 contract it's difficult for us to invest millions of dollars in 10 refurbishment. It's difficult for us to take our 10-year 11 planning horizon to determine what are we going to pay for in the 12 future when it's set up like that. I want to ask and want to quickly go down the line 13 14 and ask -- simply ask one question. We can start with you, Mr. 15 Baas. 16 Give me a yes or no if Congress should make tweaks to PURPA 17 or leave it as it is. Yes or no. 18 Mr. Baas. Yes. 19 Yes, we should modify PURPA. Mr. Kouba. 2.0 Mr. Thomas. No, we prefer it in the current form. 21 Yes, update, Congressman. Ms. Raper. 22 Mr. Glass. No, leave it as it is. 23 Mr. Prager. Yes, we believe it should be modified. 24 Mr. Rush. Thank you. Mr. Chairman, I yield back. 25 Mr. Walberg. I thank the gentleman, and I recognize the

1 gentleman from Missouri, Mr. Long. 2 I might have to watch that on replay. reminded me of "What's My Line?" when they are yes, no, leave it 3 4 as it is. I think I stepped out of the room for just a minute and I 5 believe Mr. Johnson stole my notes so this might sound like 6 7 familiar territory to what he was asking but I am going to ask 8 these questions of Mr. Prager. Under PURPA's mandatory purchase obligation, a host utility 9 10 is required to purchase a qualified facility's output even if the utility has no need for additional power. 11 12 How does the utility respond to these types of situations? Well, I provided the congressman an example of 13 14 what we are going through in Colorado right now with the particular 15 OF developer that is trying to put to us 1,520 megawatts of power. 16 It presents a very big problem to us. It really does. Ιt 17 means that we can't be certain about what our generation capacity 18 It raises costs for customers. We had some is going to be. 19 discussion earlier about avoided costs. 20 Reality with avoided costs is that the avoided costs 21 calculations that are done under PURPA are supposed to make the 22 customer indifferent to whether or not the project is financed 23 or not. 24 That is not the case when a PURPA cost comes in above what 25 would have to be bid into a competitive process. That's one of the concerns we have about it.

It also, when you have a PURPA facility coming on to the system, it locks the ability of other generators -- other independent power producers to be able to access the marketplace.

I mentioned we have a lot of wind on our system. Sixty-five percent of that is not owned by our company. It's owned by independent power producers. If a QF comes in and it occupies that field, it will be impossible for those IPPs to come in and take their position.

And finally, it also presents for our state and our system some significant challenges in terms of the reliability and protecting the reliability and cost effectiveness of the system.

Intermittent renewables are a technical challenge from an electric system standpoint. You can make it work. We have made it work. We are very optimistic about the future. But you've got to do it in the right way.

The problem with PURPA is these projects show up at a time and location of their choosing and it's very difficult for us to plan around those projects.

Mr. Long. And what impact does this have on cost to the consumer?

Mr. Prager. We believe that PURPA has the potential to raise consumer costs because we have got to accommodate these higher cost resources and we have to do it in a way that will result in additional investment in our system to accommodate the location

1	in which they would be built.
2	Mr. Long. And you talked specifically about how it affects
3	your output the utility's output?
4	Mr. Prager. Utility output.
5	Mr. Long. The utility output, how it affects the QFs?
6	Mr. Prager. We believe it's very important that the utility
7	have the ability to plan around the system as it's currently
8	designed and so we think it's extremely important that the state
9	have the leadership role in terms of setting the strategy that
10	the utility must follow in order to achieve not only a reliable
11	and low cost electric system, which are both critical, but also
12	achieve those public policy goals whether it's emission reduction
13	or renewable energy.
14	We found that our states do an extraordinarily good job of
15	that. They do an extraordinarily good job of it and in fact the
16	renewable
17	Mr. Long. So you think they can anticipate and plan for
18	integration?
19	Mr. Prager. It's hard for them to do it when these projects
20	just show up whenever they want to. It's very difficult.
21	Mr. Long. Okay. And so should the state commissions be
22	able to suspend the mandatory purchase requirement if it
23	determines the utility does not need the additional power
24	Mr. Prager. We believe they should.
25	Mr. Long in your opinion?

1 Mr. Prager. We believe they should. Yes, sir. 2 Mr. Long. Okay. Thank you. And with that, Mr. Chairman, I yield back. 3 Mr. Walberg. I thank the gentleman. And I recognize the 4 5 gentleman from Iowa, Mr. Loebsack. Thank you, Mr. Chair. It's always great to 6 Mr. Loebsack. 7 have these hearings so we can hear from a lot of different 8 perspectives. 9 For me, being from Iowa and particularly proud, obviously, 10 of what we do with wind, Mr. Kouba, you and the other principal 11 utility in the state of Iowa, very, very important when it comes 12 to that. I do have one quick question. Is there any way we can get 13 14 to 40 percent of electricity by the end of the year or is that 15 a pipe dream? 16 Mr. Kouba. I wouldn't say it's a pipe dream and we are working hard to get there. 17 18 Yes. It's going to be hard, because to get Mr. Loebsack. 19 there we're 36 percent now. I do want to say, though, first, I 20 want to mention solar because there is more and more solar in Iowa 21 all the time as well. 22 A lot of people don't think of Iowa as, you know, having a lot of solar. But it really does, and I really want to thank 23 24 Alliant for doing what it is doing. You know, we have a lot of

RACs that are working on this.

SIPCO is providing solar to five and maybe even more now. 1 2 I know they are planning to do even more. And we have got a lot 3 of -- lot of folks, you know, ranging from schools to farms to hog farmers who are installing solar panels. 4 The ITC, I think, has been very, very good for that. 5 6 there are many concerned about these particular programs and 7 subsidies. But the ITC, I think, has served its purpose and the 8 PTC for wind -- there is no question about that. 9 So I am very proud of what I was doing at this point. Wе 10 have a great story to tell when it comes to wind, and we may be behind Texas when it comes to wind power but we are still ahead 11 12 of California, nonetheless, and it's great. But, you know, I am pleased to hear, obviously, the \$1 billion 13 14 commitment to build more wind in Iowa too on the part of Alliant 15 Energy. 16 It's great news, and as for PURPA modernization, I want to 17 ensure, I quess, that wind energy is deployed in the most cost 18 effective manner for my constituents, for all of Iowa, for the 19 entire country, while ensuring that the federal government continues to promote renewable growth energy in my state. 20 21 And I think there is a story to tell there. You can elaborate 22 I mean, I guess the question that I would have a little bit more. at the outset is has PURPA actually served to drive extensive 23 24 renewable energy development in the past and where are we to go

from there?

1 You have some policy recommendations. You mentioned the 2 one-mile -- the one-mile rule. But, I mean, did it work in the past but now we are just having some difficulty with it at the 3 4 moment and reforms are necessary? Is that fair to say, Mr. Kouba? 5 I would agree it has worked in the past. Mr. Kouba. In some respects, it's still working. I think for us specifically what 6 7 we see in Iowa is foreign companies abusing the intent and spirit 8 of PURPA when they disaggregate these projects, move them down to the distribution system which causes all sorts of reliability 9 problems in and of itself. 10 So it's those companies we think that are abusing that. 11 Just 12 instead of competing in Iowa in the renewable market, disaggregating the systems, moving down to the distribution 13 14 system, claiming they are PURPA facilities, spread them one mile 15 apart so we can't even challenge that. The IUB can't challenge that. So that is our main concern 16 17 with what's going on right now with respect to abuses of PURPA. 18 Mr. Loebsack. Do you have other policy recommendations beyond the one-mile rule issue? 19 We do have policy recommendations. 20 Mr. Kouba. The 21 one-mile rule is one of them. The other one is to be able to 22 challenge this disaggregation of larger projects. Also, for the states to be able to say that utilities do not 23 24 need to buy that capacity and energy when it is not needed and, 25 really, a number of the panellists have talked about how you get

that integrated resource planning process in itself and just make 2 that more of a competitive process instead of just those QFs that are disaggregate on those projects and putting it on the utilities. 5 Mr. Loebsack. Right. We're looking for competitive resources for our 7 customers. Mr. Loebsack. Right. And then, ultimately, obviously, it is to make sure that we have competition so that the cost to the 10 consumer, you know, is driven down as well. And so that is really important and I know Mr. McKinley 11 12 mentioned jobs. You know, in the state of Iowa wind has created Solar is creating more jobs every day. thousands of jobs. 14 certainly has. 15 In my district alone, I often mention in these hearings that I have a number of wind energy plants in my congressional district 16 17 alone, two of them in Newton, Iowa, where we once had Maytag, 18 Whirlpool. No longer. But the wind energy industry has come in and really created a lot of great new jobs, and so I want to continue to do that as 20 21 best I can. 22 But thinking also our consumers of energy and making sure that what we have in place -- the regulatory framework we have 23 24 in place, going forward, whatever that may be is going to serve those energy consumers as well.

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1 So with that, I yield back. Thank you, Mr. Chair. I thank 2 the panel. 3 I thank -- I thank the gentleman. Mr. Walberg. I now recognize the gentleman from Illinois, Mr. Kinzinger. 4 Well, thank you, Mr. Chair, and thank you 5 Mr. Kinzinger. all for being here. A lot of the questions I wanted to ask have 6 7 been asked so I will just hit a couple. 8 Ms. Raper, the driving factor behind PURPA was national security through field diversity after the oil embargo. 9 10 seen great success in energy efficiency in the development of domestic renewables since the '70s. 11 12 Today, however, energy security means more than just It's reliability, particularly during and 13 security of supply. 14 after extreme weather. It's grid resiliency. It's mitigating 15 cyber attacks and some other concerns. As a state regulator, do you see circumstances where PURPA 16 17 may impact grid reliability or not allow you the most efficient 18 plan for energy security in your state? 19 Ms. Raper. Thank you, Congressman. I do see circumstances where PURPA could impact grid reliability because as a must-take 20 21 resource we are forced to approve contracts and the utility is 22 forced to accept that energy onto their system and they need to 23 find a way to balance that energy. 24 I don't know about national security risks so much, although 25 I do appreciate you bringing that up because that is becoming a

greater and greater concern for the state regulatory commissions. 1 2 But it absolutely affects and impacts reliability of the grid when you have more megawatts entering onto distribution and 3 transmission systems than what's being taken off because of flat 4 5 load and reduced load by energy efficiency measures. Thank you. And to the rest of the panel, 6 Mr. Kinzinger. 7 do you -- anyone else want to comment on the role of PURPA in light 8 of the much broader definition of energy security? 9 Mr. Baas. Thank you, Congressman. Mr. Kinzinger. We'll go over here and then over here. 10 am sorry. So we'll start with Mr. Glass. 11 12 Mr. Glass. Thank you. Actually, I think it's a great question. It's something 13 14 that all utility, utility commissioners, and Congress and FERC 15 should all be paying attention to. 16 I think that we are looking at newer -- new types of risks 17 -- not just weather risks, but national security risks of all 18 different types. I think that there has been a recognition within the utility 19 industry in the last 10 years that with a greater diversity of 20 21 resources on the system located at different places on the grids, 22 while it might be more complicated, it certainly is a lot more robust in a variety of situations. 23 24 And, sure, the utilities -- and the utility commissions need 25 to know how to use these resources but solar resources in

particular and, more broadly, distributed smaller resources 1 2 throughout the system actually adds a great deal of security -energy security to the extent that it can be managed better. 3 So I think greater diversity helps with security. 4 My comment was going to be not to forget existing 5 Mr. Baas. base load renewable energy such as waste energy. The utilities 6 7 in Michigan are looking to build and construct new capacity when 8 they are really beginning to frown on existing renewable under And so we would -- I would ask that you consider that. 9 10 Mr. Kinzinger. Thank you. Mr. Prager. In terms of the security of the grid, especially 11 when you think about cyber security, it's never completely clear 12 that you actually are making the grid more secure with more 13 14 distributed resources. 15 There is some real value in having greater diversity on the grid to help protect from having one massive failure. 16 17 is is that with a lot of different facilities on the grid they 18 represent doors into the system where cybersecurity threats can 19 enter in. We spend a lot of time thinking about this and it is one of 20 21 the growing concerns as you add more distributed resources to the 22 system and that is true for a lot of these QFs as well. 23 Mr. Kinzinger. Thank you. 24 To the panel, you all provided the areas that PURPA could 25 be modernized and improved. With energy technology almost

2 security threats we face, what, if anything, should this committee consider in order to make it effective for the next 40 years? 3 I guess those that participated maybe can answer that question. 4 You know, as the -- as the energy markets 5 Mr. Prager. evolve, the best thing to do is let them evolve and to no longer 6 7 have these kind of forced mandates over the top of the energy 8 markets. 9 States do a great job in terms of protecting the reliability 10 of the -- of the grid. They do a great job in terms of protecting the cost effectiveness of it. There's lots of market 11 12 opportunities out there right now. There's lots of least cost resource planning. 13 14 thing that could happen would be for PURPA to get out of the way 15 and that is really the ultimate advocacy that we are supporting. 16 Mr. Kinzinger. Thank you. 17 And Ms. Raper, do you have anything to say on that at all, 18 in terms of what we should consider? I don't -- I mean, I would -- although I don't 19 Ms. Raper. want to disagree with Mr. Prager but I don't think PURPA is the 20 21 worst thing on the planet. 22 I think it's being abused. And so I think that if we removed the abuse -- I mean, Idaho's been implementing PURPA for -- since 23 24 the early '80s and there was not a problem until the last decade 25 when the large generators coming in and gaming the system, were

constantly evolving and rapid changes to the kinds of energy

manipulating the loopholes in the act, complying with the letter 1 2 but not the intent of the act. And I do agree that there is a balance of what Mr. Glass and 3 Mr. Prager said and that is that you put too many renewables and 4 QFs on the system and you actually create a worse environment for 5 them. 6 7 We believe in distributed generation and the value of 8 distributed generation and keeping the grid consistent and 9 reliable as well. 10 Mr. Kinzinger. Thank you. Thanks to all of you. I yield 11 back. 12 Mr. Walberg. Thank you. Gentleman's time has expired. Now I recognize the gentleman from California, Mr. McNerney. 13 14 Mr. McNerney. I thank the chairman. I thank the witnesses 15 for coming here today. Interesting testimony and informative. I got a couple of things out of your testimonies, some ways 16 17 to improve PURPA. One is to improve the one-mile rule and to allow 18 states to address gaming. I think that was Ms. Raper and Mr. 19 Thomas. Thank you. 20 Subsidies are not included in contract negotiations -- Mr. Thomas. Large gifts should be -- should sell power more 21 22 competitively -- Mr. Kouba -- and the need to add QFs to integrated 23 resource planning. Am I mistaken or am I misinterpreting what 24 anyone said on those -- those comments? 25 I think PURPA can be revised to encourage low-emission or

zero-emission -- carbon emission without increasing cost to 1 2 Does anyone disagree with that? consumers. 3 Sure. Go ahead. Ms. Raper. If I can just qualify that. I think that that 4 5 But I know that Idaho has taken a lot of criticism is possible. for their two-year contracts and part of what Mr. Glass is talking 6 7 about about a correct avoided cost it may be a correct avoided 8 cost right now with -- based on the factors that you use to predict 9 what that avoided cost ought to be. 10 But the longer the term of the contract because we are in a volatile energy market and it is always volatile, the longer 11 12 the contract the more disparity there will be between actual avoided cost and what the utility is paying those. 13 14 So 20-year contracts, in our opinion, are never going to be 15 representative in the end of what the incremental cost to the 16 utility is. 17 Mr. McNerney. Well, that may be true. But as a small power 18 producer, it is almost impossible to get financing without some 19 sort of long-term guarantee or contract. 20 Ms. Raper. May I address that, Congressman? 21 Mr. McNerney. Yes. 22 It's our opinion that as long as PURPA exists Ms. Raper. and there is a must-purchase obligation there that the utility 23 24 has to take that energy, then there is something reliable to go 25 and get financing based on you show them the federal act that says

1 that the utility has to take this energy on an ongoing basis or 2 the modification that can be made. As we read PURPA now, it says that the cost of that power 3 is either determined at the time that the contract is entered into 4 5 or upon delivery of the energy. So to us, if you have a 20-year contract, you determine at 6 7 the time the contract is entered into what that avoided cost would 8 be. All we tried to do with --Mr. McNerney. But, I mean, that is a risk to you and also 9 10 just a kind of a risk to the power producer because costs may go up, in which case the power producer is stuck at a lower cost. 11 12 I mean, that is just futures gaming. Whether it's the utility or the producer, you are both taking a risk. 13 14 Mr. Kouba. Yes, could I comment on that? 15 Mr. McNerney. Sure. 16 Mr. Kouba. When we go to add resources at our utility and 17 we walk into the Iowa Utility Board to get those approved for 20 18 years, 25 years, 30 years, we come in there with a whole study for that time period with various scenarios on what happens if 19 20 gas prices change, what happens if an environment rule changes, 21 carbon taxes change. 22 So we have the whole gamut of scenarios for 20, 25, 30 years that then they can look at and say yes, this is still a good 23 24 decision to add this resource over all that -- those scenarios 25 for 20, 25, years.

1 That's not the case with these folks gaming the system. 2 come in with no 20-year plan showing that is going to be beneficial 3 to customers. Right. Well, I mean, that is one of the 4 Mr. McNerney. 5 improvements that I think could be made is eliminating the game 6 -- giving states some ability to fight gaming. Mr. Glass. 7 Mr. Glass. Congressman, I would say if they are doing that 8 analysis and they know what the long-term costs are, use that to 9 set your voided costs. It's very simple. 10 There's no reason why when you are entering into a 20-year PPA as utility that you would use a different set of data than 11 12 your avoided cost. We need to be able to have -- in order to develop and finance a solo project or any independent power 13 14 contract you need a long-term stream of revenues. 15 You cannot depend upon the market price in any part of this 16 Merchant generation in this country is dwindling. 17 There's very little of it actually happening, especially outside 18 organized markets where you can't effectively hedge against such 19 things. 20 To allow only two-year contracts or to require these people to ride the market means the end of PURPA QF contracts and it means 21 22 the end of independent power. Mr. McNerney. Right. No, I understand and I agree with 23 24 that. 25 How does storage affect PURPA's viability as a long-term

1 requirement as a -- as a regulation? Yes. 2 Mr. Glass. Right now storage is not specifically contemplated in PURPA or in the implementing regulations, to my 3 knowledge. I would say this. 4 5 PURPA was actually -- and the implementing regulations were very sensitive to the difference between energy and capacity and 6 7 also the other ancillary services that these types of resources 8 can build. 9 I would simply put it this way. Get more sophisticated about 10 the avoided costs. Get sophisticated about the energy, the capacity, and if it makes sense to build in, you know, a financing 11 way, to build and install battery we'll build it and there's 12 greater capabilities that will come with getting compensated with 13 14 that. 15 Thank you. The gentleman's time has expired. Mr. Walberg. 16 Mr. McNerney. I was about to say that. 17 Mr. Walberg. And we got -- we have got votes coming. Wе 18 are trying to move it on a little bit, and so now I recognize the gentleman from the inspiring state of Texas, Mr. Barton. 19 Mr. Barton. Thank you, Mr. Chairman. I will be, I think, 20 21 relatively brief. 22 I didn't hear the opening statements of the panel. But in answer to Mr. Kinzinger's questions, Mr. Prager, does your company 23

We provided several different options in the

support repeal of PURPA?

Mr. Prager.

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1 end of my written testimony. But one of them is yes, we would 2 support the repeal of the Section 210 requirements under PURPA 3 for a forced purchase. Mr. Barton. I am open to that, and I wasn't here in '78, 4 5 believe it or not, but I got here in '84, and we thought about repealing it in the Energy Policy Act of 2005. We did add or 6 7 change it, which the FERC implemented in Order 688. 8 Mr. Glass, you -- could you tell me what the average size of a -- of a solar plant is today? 9 10 Mr. Glass. The average size of a PURPA --11 Mr. Barton. New construction. 12 Yes. The average size of a PURPA solar project Mr. Glass. 13 is eight to 10 megawatts in total. There are some larger and there 14 are, obviously, smaller as well. But for PURPA projects it's 15 usually in that range. Mr. Barton. Well, I appreciate that. But just the -- if 16 17 it is not PURPA, what -- what does the economics of solar today 18 indicate the optimum size is? I would think it would be larger 19 than that. But maybe not. I think for a utility scale solar, I would 20 Mr. Glass. Yes. say the average is now north of 50 megawatts. I think for 21 22 commercial and industrial there's different -- you know, when you 23 are on a flat rooftop there's a different optimization for, 24 obviously, residential. You're talking, like --25 Mr. Barton. Right.

Texas has an open

access, you know, market system in ERCOT. We deregulated our 4 5 power generation. Do you believe, and you may not know this, but nationally 6 7 is there a problem for these so-called facilities getting access 8 to the grid? There was a concern in the '70s that there -- since 9 you had everything was regulated and integrated that there might 10 be. But in today's market is that still a problem? 11 12 Ms. Raper. Thank you, Congressman, for the question. think that there is not a problem for large facilities -- large 13 14 QFs to have access. 15 I do believe that there are still co-generation facilities and other small -- we have run-of-river hydro that come in under 16 17 as a QF resource and I believe that those are entitled to those 18 published standard rates that PURPA talks about. 19 But no, I think that you get to 10 megawatt, 20 megawatt and 20 I think it is insincere for Mr. Glass to represent that the average 21 size is 10 megawatts for a QF. 22 The average size is 10 megawatts for a QF because the 100 23 megawatt disaggregated in order to become 10 of those. 24 I think that -- I think it's proven through the Energy Policy Act 25 of 2005 and the modifications that Congress made that there is **NEAL R. GROSS**

-- five or six kW.

since you are a public utilities commissioner.

Ms. Raper, you may be the best person on this,

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Mr. Glass.

Mr. Barton.

access in a competitive market for those larger QF facilities. 1 2 I haven't talked to the -- to the chairman or Mr. Barton. the ranking member so I recall don't know where the will of this 3 subcommittee is on this issue. 4 But if you assume that we're not going to repeal PURPA which, 5 again I would be open to, but you wanted to reform it, is the 80 6 7 megawatts standard for a QF and then the 20-watt megawatts 8 standard under FERC's 688, are those still valid or should those 9 be changed? And I will let anybody take a pop at that. 10 Mr. Kouba. We are advocating to lower that 20-megawatt 11 limit down to two megawatts. 12 Mr. Barton. Two. Okay. Mr. Baas. And I would disagree. I believe that facilities 13 14 like ours have a very difficult time moving electricity to the 15 grid competitively. Twenty megawatts at a minimum and for waste energy facilities 20 to 80 would be very helpful. 16 17 Mr. Prager. And, Congressman, we would support reducing the 18 80-megawatt limit down and make it consistent with the limit that is associated with competitive markets across the country, 19 20 especially for states that have competitive least-cost resource 21 planning. 22 Thank you, Mr. Chairman. Mr. Barton. Mr. Walberg. I thank the gentleman. 23 24 I now recognize another proud Texas, Mr. Flores. 25 Mr. Flores. Okay. I want to thank the chairman for hosting

1 this informative hearing and also thank you, panel, for your 2 excellent testimony. Three quick questions, if we can. 3 It seems to me like state policies are driving the growth and renewable generation. 4 5 They've got renewable portfolio standards -- tax credits, competitive procurement requirements, net metering are just a few 6 7 of those policies. 8 So two questions out of that statement. The first one is 9 can we even determine if PURPA's mandatory purchase requirements 10 under Section 210 are still a factor in driving renewable 11 generation as opposed to the state renewable policy? 12 So Mr. Baas, I will start with you. The state policies certainly help, but the 13 14 federal PURPA requirements I think really enhance and provide that 15 umbrella framework for the states to operate. 16 Mr. Flores. Which do you think is having a greater impact 17 today? 18 PURPA. Mr. Baas. 19 Mr. Flores. Okay. Mr. Kouba. 2.0 In Iowa, there is no doubt that PURPA facilities Mr. Kouba. 21 aren't driving renewable growth. It is the utilities driving 22 renewable growth and other -- many other independent power 23 producers driving renewable growth, and we can take advantage of 24 those independent power producers through very competitive RFPs 25 and PPAs and certainly with our own facilities.

1 We go through RFP processes that make very competitive prices 2 for those projects. So definitely being driven by utilities right now and independent power producers. 3 Mr. Thomas. 4 Mr. Flores. 5 Mr. Thomas. Thank you. We believe PURPA has had, you know, We would not be nearly as competitive in 6 a great impact on us. 7 manufacturing without their ability. I can't think of an example 8 where PURPA was used, you know, with a hammer for us to be able 9 to do this. 10 Most of the time, we work through with the state or with the 11 utilities and come up with a negotiated contract. But PURPA's 12 presence is important and it kind of enables that. 13 Mr. Flores. Okay. Ms. Raper. 14 Ms. Raper. Thank you, Congressman. 15 I think initially PURPA drove some of the renewables that 16 came onto the market. It assisted in people wanting to invest 17 in things like wind and solar and geothermal. But I don't think 18 that it's the driving force anymore for getting renewables on the 19 system. 2.0 Mr. Flores. Mr. Glass. 21 As my testimony -- I detailed in my testimony Mr. Glass. 22 roughly 20 percent of all the solar installation that was 23 installed in the U.S. last year was based upon PURPA-developed 24 contracts.

So it was significant. And I would say for the other 80

1 percent, PURPA is a very important backstop in case the other end 2 of the offtake contract goes away. Financiers depend upon PURPA as that backstop as Plan B. 3 4 Mr. Flores. Mr. Prager. The vast majority, over 95 percent, of the 5 Mr. Prager. renewable energy on our system, which is, again, the largest 6 7 renewable wind energy provider in the country, comes as a result 8 of state policies, low costs, and market forces. It's not because 9 of PURPA. 10 Mr. Flores. Okay. Thank you. 11 Did I really get five minutes at the beginning? 12 Mr. Walberg. You sure did. 13 Mr. Flores. Somebody cheated me on the clock. 14 Anyway, I yield back the balance of my time. 15 Mr. Walberg. We took care of the cheat and gave you, in fact, 16 a little bit more in the end. So do I need -- can I keep going? 17 Mr. Flores. 18 Mr. Walberg. No, no, no. You're --19 [Laughter.] 20 It's always worth a try, though. I appreciate very much the 21 hearing today and I appreciate the fact -- I recognize myself --22 appreciated the fact that four out of six of the panellists also indicated that they were open to tweaking, reforming, altering, 23 24 amending the process and over the last few months I've been 25 drafting the PURPA Modernization Act of 2017.

I believe that PURPA is ripe for reform and, if done correctly, it will increase competition, lower utility bills for our constituents, and ultimately promote grid reliability. excited to work with this committee to bring about nearly four years of law into a change for the 21st century, if we can do that. I want to thank the witnesses for being here and great to have a Michigander here as well, Mr. Baas. Mr. Prager, in your testimony, you mentioned that PURPA's mandatory purchase obligation is hindering Xcel's ability to properly undertake critical resource planning. Can you please elaborate on this and how it's negatively impacting your customers, and additionally, do you think that it would be beneficial if states were given mandatory purchase obligation waiver authority? Mr. Prager. I do think it would be beneficial. States are doing an excellent job right now in making sure that they manage their resource plans, do it cost effectively and achieve these energy policy goals, including some very aggressive -unbelievably aggressive goals for renewable energy development. My testimony does talk in some detail -- my written testimony -- about some of our experiences, especially the experience that I indicated in Colorado where we are actually adding in over -we are being asked to add in a gigawatt and a half of renewable energy that we haven't planned for, that we haven't sited, that we haven't put through the process.

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1 That gigawatt and a half of QF facilities, if they come in, 2 will completely disrupt our resource planning and will raise 3 customer costs and it threatens the reliability of our system. Mr. Walberg. Okay. Ms. Raper, would you care to add 4 5 anything? 6 Ms. Raper. Amen. I --7 Mr. Walberg. That's fine. 8 Ms. Raper. Thank you, Congressman. I agree. Without 9 being able to plan for the resources for QFs when they come on, 10 then it adversely impacts the utility's ability to plan, going 11 forward. 12 And we have seen that in our state with the way the integrated resource plans are submitted every two years. There are swings 13 14 now instead of tweaks to those integrated resource plans and that 15 It impacts investment. is a problem. 16 Mr. Walberg. It's a challenge. 17 Mr. Prager, you noted that Xcel is the number-one utility 18 provider for wind. You've also touched on the fact that OFs do 19 not face the market competition other IPPs are subject to. 20 Do you believe that PURPA is counterproductive to renewable 21 electricity competition and is keeping your customers from 22 enjoying the technological advancements made in renewable 23 generation such as wind? 24 Mr. Prager. We think it's very important when you bring any 25 resource onto the system including renewable energy. You do it

1 cost effectively. You do it in a way that results in low-cost 2 reliable power for your customers. 3 We have been able to do that outside of the PURPA process. 4 PURPA is not consistent with the way that states are currently 5 doing the resource planning that allows us to bring in that power 6 on a cost-effective and reliable basis. So yes, I would agree 7 with that statement. 8 Mr. Walberg. Okay. Mr. Kouba, in your testimony there was 9 some mention of reliability impacts to the system due to the 10 integration of these larger QFs on the distribution system. How does a utility plan for or mitigate these issues and, 11 secondarily, who is ultimately responsible for grid reliability 12 issues -- the utility or the OF? 13 14 Mr. Kouba. As a matter of fact, we can't plan for them because these QF facilities now that are being disaggregated and 15 16 located on our distribution system come in at any given time and 17 we have absolutely no warning. 18 So there is no planning for the future in those cases. It's basically reacting and doing the best we possibly can to ensure 19 that the rest of our customers on that distribution system aren't 20 adversely impacted, and in many cases so far they have been 21 22 adversely impacted. It's just if you don't take these into the resource planning 23 24 process, you end up having potentially transmission system 25 impacts.

1 We are seeing that now in the distribution system because 2 there's no adequate planning to add those facilities. They come 3 They may not actually be needed there, and they in at a location. do end up causing problems for our customers -- those distribution 4 5 systems. Okay. Mr. Kouba, you mentioned that there are 6 Mr. Walberg. 7 opportunities for these QFs to integrate into the transmission 8 system. How do they integrate and are some QF developers 9 bypassing these established process in MISO? How they would integrate in the transmission 10 Mr. Kouba. 11 system is very similar to how we integrate a new resource, whether 12 it is wind or combined cycle natural gas in the transmission system. 13 14 There is a process in place in MISO to do that. They could walk through that process just like we do and that process helps 15 16 ensure that as we or QFs or independent power producers are placing 17 generation on the system, we are actually improving the 18 reliability system, not having a detrimental impact on the 19 transmission system. So they could follow that process just as we do. 20 I think 21 what they are finding is it is a bit of a cumbersome process. Ιt 22 takes some time. There may be transmission system additions that are needed 23 24 that are more expensive so they disaggregate -- in our case, in 25 Iowa -- and put them down in the distribution system where they

1	don't have to deal with that and don't have to deal with the cost
2	of transmission system upgrades.
3	Mr. Walberg. Well, thank you. My time is expired.
4	And I guess I guess I am not the last one. And now I
5	represent recognize my friend from New York that somehow got
6	behind me. Mr. Tonko.
7	Mr. Tonko. Thank you, and if you want to represent me too
8	you can do that.
9	Mr. Walberg. I'd be delighted to. Couldn't work well,
10	though.
11	Mr. Tonko. All right. Thank you. Thank you.
12	Let me thank the witnesses for joining us this morning
13	because it's such an important bit of discussion.
14	Mr. Thomas, I am a big supporter of CHP. With the recent
15	devastation of Hurricane Harvey and other massive storms that are
16	predicted to happen more and more if we don't address climate
17	change, I am concerned about where how we come back from these
18	storms.
19	I think back to my home state of New York and the damage caused
20	by Superstorm Sandy. During Sandy, we saw, you know, in that
21	whole experience the resiliency of the CHP facilities. In some
22	places, electricity was down for days but CHP kept working.
23	So has PURPA been successful in bringing more CHP facilities
24	online?
25	Mr. Thomas. Yes. I think the easy answer is absolutely.

It gives -- the difference with the CHP facility and just the straight manufacturing is you make additional and large capital investment in the generation.

So knowing that you can recoup that over the length of the period -- you know, 20 years or so -- gives us the confidence to install that generation and make that a CHP facility versus just a straight load manufacturing facility.

Mr. Tonko. And can you discuss whether there might be a need to address some definitional or threshold issues with the law? For example, your testimony mentions that many CHP facilities export very little electricity to the grid.

Does it make sense to reclassify the size of a CHP installation based on the amount that is generally exported to the grid rather than what its overall capacity might be ranked?

Mr. Thomas. Yes, and thank you for your question. You know, a lot of times we talk about megawatts when we talk about the PURPA numbers -- you know, 20 or 80 -- and for us it's more about the amount of energy, not the megawatts because our facilities may look like they can net export 20 megawatts, let us say, but we seldom do that because we match the steam load with what we need from manufacturing.

So, you know, we think an energy number is a better way to do that. But, you know, leave it in place. Just change it from measuring absolute capacity to measuring the amount of power that is put on the grid.

Mr. Tonko. Thank you.

Mr. Glass, can you explain the relationship between smaller solar projects, those residential or community projects, and those of utilities and the need for standard and expedient interconnection processes?

Mr. Glass. Great question. All three levels -- utility scale, commercial and industrial, as well as residential all need very clear straightforward paths to interconnection and where that interconnection creates costs on the utility -- the interconnecting utility, those costs ought to be worked out and be dealt with so that the cost cause are at pace for those types of things.

SEIA is completely, you know, supportive of that type of thing. However, the one thing I would say is that we need to make sure that these smaller types of facilities can efficiently plug in.

It would seem that the panel is most, you know, enamoured of the centrally-planned utility model that we had back in the '60s where there would be no small scruffy co-generator or small energy producer of solar or anything like that that would come interconnected and mess with their plans.

Unfortunately, that very competition I think has been very successful in helping to bring down costs over time and I would encourage -- whether it be interconnection I would request that the utility still be required to have that competitive

disruptiveness of smaller generation facilities such as solar. 1 2 Mr. Tonko. Now, does PURPA play a role in ensuring that there are nondiscriminatory interconnection processes? 3 Mr. Glass. Absolutely. It's the bedrock. 4 5 there was no PURPA there wouldn't have been an EP Act 1992 and an Order 888 and all of the things leading to the New York rev 6 7 process that is going on right now. We've been increasing 8 competition since 1978 and we ought to continue to do so. 9 Mr. Tonko. And I would ask that, and so it is important to the future of the solar industry that we move forward with these 10 sort of opportunities with interconnection? 11 12 Mr. Glass. Absolutely. And I understand a number of witnesses represent 13 14 utilities or facilities in deregulated electric markets. 15 But you have member companies selling and installing solar 16 projects all across the country. Is PURPA still important to 17 bring competition and generation diversity to areas that have 18 retained the vertically stacked integrated utilities? It's vital in both markets. 19 Yes. I would say that a number of -- well, a third of the load of the country is 20 21 still in what we call vertically integrated utility -- monopoly 22 utility systems and then a third -- the other two-thirds are in the New England -- it is ERCOT and California to a lesser extent. 23 24 There are different systems that apply and there is solar 25 going in in both. I would say that PURPA is important across all

of them for the market access, the transmission, the interconnection that you were just mentioning but also as the financial backstop so that people can get the financial certainty of the stream of revenues over time to be able to finance these projects. So it is vital. Thank you, and thank you again to all of our witnesses. Mr. Chair, I yield back. Thank you, Mr. Tonko, and again, apologies for Mr. Walberg. looking right past you. Sorry about that. Making sure I am looking around, I see no other further members wishing to ask questions. I would like to thank all of the witnesses again for being here today. We appreciate this and I certainly hope that we will continue these discussions. It's important -- it is an important topic and it is important for energy. Before we conclude, I'd like to ask for unanimous consent to submit two documents -- two letters dated September 5th, the first from Cypress Creek Renewables, the second from Northwest and Intermountain Power Producers coalition -- for the record. Hearing no objection, they will be submitted for the record. [The information follows:]

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1	Mr. Walberg. Pursuant to committee rules, I remind members
2	that they have 10 business days to submit additional questions
3	for the record and I ask that the witnesses submit their response
4	within 10 business days upon receipt of the questions.
5	So without objection, the subcommittee is adjourned.
6	[Whereupon, at 12:02 p.m., the meeting was adjourned.]